



## **WILLI BECKER – *Company founder and maritime pioneer.***

Willi Becker, the founder of Becker Marine Systems, was born in Rosslau on the Elbe river on September 19, 1921. His grandfather, father and his brothers were captains on inland waterway barges – Willi Becker was born with shipping in his blood.

Willi Becker was the eldest son of the family and had three brothers and sisters with whom he grew into shipping from a young age. The permanent residence of the family was Barleben near Magdeburg, but in summer the family lived on a houseboat with their father, who made his living with dredgers. After his time at school Willi Becker jumped into a mechanical engineering apprenticeship. Class was held from 7 a.m. to 5 p.m., followed by vocational training as a mechanical engineer from 6 to 11 p.m. on his father's tugboat. On weekends Willi Becker also gained

practical experience on the ferryboat he commanded. This hard period of marine engineering training lasted three years, up to his conscription as a soldier.

On turning 18 in 1939, Willi Becker was immediately conscripted, and served from the first to the last day of the war. He managed a vehicle fleet for the armed forces, while at the same time continuing to learn intensively about mechanical engineering. Thanks to his local knowledge as a boatman, he led his squad to the Elbe at the end of the war and took them to the American lines near Rosslau by rowing each one of them across in a rowboat. There his squad surrendered to the Americans; however, Willi Becker had something else in mind besides wasting time in captivity. He hid from Russian troops in Magdeburg until the end of the war.



*Magdeburg and the river Elbe today*



*"Laubfrosch", a getaway to the West*



*"Mittellandkanal" near Braunschweig*

With his technical talent he was able to get an Opel Laubfrosch running again and drove towards the American-controlled West, where Willi Becker reckoned he had the best chances for his business ideas.

The car was taken away from him at the border to the British occupation zone, so he bought a horse. And because the horse had lost a shoe, Willi Becker stopped off in Calberlah. Guided by fate, this is where Willi Becker met his future wife. The young couple stayed together in Calberlah, near Braunschweig, on the Midland Canal.

Their two children, Willi and Marleen, were born in Calberlah and this is where Willi Becker obtained his trade license. This entry into business life in 1946 marks the birth of what is today Becker Marine Systems.

With help from his sister-in-law and friends, a small motorboat, a tugboat, was piloted under cover of darkness from Magdeburg down the Elbe from the Russian to the British occupation zone. When crossing the border, the motor was switched off and the boat was pulled by hand across the border to keep the Russians from noticing anything. After arriving in Calberlah the boat lay safe and sound until the currency reform two years later.



*Willi Becker and his son on board the "Marleen I"*



*Inspiring flaps of the "Super Constellation"*



*Another source of inspiration – steering the "Marleen I"*

## 1948-1955 – First steps lead to a revolutionary idea.

The currency reform of 1948 was the right time for Willi Becker to set his tugboat anchored in Calberlah afloat – it was worth earning money again. He started off by disclosing that he would only return when he had work enough to feed his family.

That year Willi Becker founded an inland waterway shipping company with headquarters in Koblenz and found a client in the Koblenz shipbuilding authority. He cleared the Rhine waterway of sunken wrecks with his small tugboat. Willi Becker bubbled over with resourcefulness in all areas of life. He organised a cow that he tied to a bench vice in his workshop in order to get fresh milk for his family that had followed him to Koblenz.

At the beginning of the 50's Willi Becker started construction of an aluminium ship, the "Marleen I".

In cooperation with Aral, Willi Becker's shipping company specialized in tank ships supplying provisions and fuel to boatmen on the Rhine. With a good eye for business opportunity, in addition to fuel he also sold boulevard magazines to boatmen from on board his "Marleen I", because many wives also travelled along on the barges.

The Aral company decided to also station a bunkering boat in Hamburg and ultimately asked Willi Becker to relocate his "Marleen I" to Hamburg. So Willi Becker moved with his family for the last time – to Hamburg.

The daily tours with his "Marleen I" led Willi Becker to a business sector that would become the core business of his company for decades: he needed a better rudder in order to be able to manoeuvre his heavily laden and hard-to-steer bunkering ship.

Legend has it that Willi Becker ultimately contemplated a new rudder during a flight on a "Super Constellation". Taking inspiration from the landing flaps that were retracted and extended during take-off and landing, Willi Becker thought, "If this works in aviation, it can also work in water!"

The idea was simple: adding a kind of landing flap to a ship's rudder would increase the effect of the rudder. Willi Becker tested this in practice – and invented the world-famous Becker rudder. This revolutionary flap rudder added up to 90% more transverse force to ships with the same space requirements, critical for any manoeuvre and favourable for fuel consumption. Willi Becker was in no way finished with the invention of the flap rudder. He also invented helm houses for inland waterway barges that could be raised and lowered hydraulically, vital for passing under low Rhine bridges.

But the flap rudder, quickly known as the Becker rudder, was the cornerstone for a very successful company history.



**“MARLEEN I” – Willi Becker’s innovative tanker concept.**

From the sales brochure “Bunkering Boat in Mobile Service”:

*“A new “Marleen” type was developed from decades of work and experience in operating bunkering boats. Good quality and the practical application of many technical innovations were purposefully unified in this design. These are the requirements for a powerful bunkering boat, especially for mobile service. Good manoeuvrability to safely navigate moving towards and away from customers at full speed without losing time, high speed to follow and catch up with customers travelling in the opposite direction, great carrying capacity to avoid wasting time by having to reload, constant operational readiness maintained even if one engine should fail, fast delivery of fuel, lubricant and drinking water*

*guaranteed the high level of operating efficiency of the boat. The rapid servicing of customers guaranteed by a new kind of time-saving delivery system for fuel and lubricating oil with clearly visible measuring gauges that switch off automatically (the delivery of different volumes can be accomplished at the same time), a hydraulically driven pump system with ample power reserves, two delivery points for drinking water covering the customer’s needs both fore and aft during bunkering, and an option for taking on waste oil via a hose with attached hand pump. The preceding features considerably extend the operating range of*

*peak periods without interruption. The “Marleen” is available in aluminium or steel models. In terms of carrying capacity the manufacturing costs for both models are the same. The aluminium boat has an increased carrying capacity of approx. 25%, enabling monthly handling performance of 5,000 tons. Other advantages are: discontinuance of painting and preservation work; quick and easy cleaning options; no contamination of loaded goods; less damage in case of accident by higher material elasticity, no sparking, thus preventing explosion hazard; higher speed by lower frictional resistance of the boat body; the corrosion resistance of the material secures maintenance of boat value.”*



### 1972-1975 – Kort nozzles and a global market.

In 1972 Willi Becker took over the Kort engineering company with three employees and rudders and nozzles were now being developed for ice-going ships. For Willi Becker this signified more and more trips to customers abroad, to Japan, for example, to visit business partner Nakashima and to Korea.

From the *Binnenschiffahrts-Nachrichten* ("Inland Waterway News"): "Another product from Willi Becker is the Becker-Kort nozzle. As the official successor to the Kort engineering company, all materials and collected experience were assumed in 1972. The nozzle is used to increase forward propulsion and is particularly beneficial when installed on ships with propellers subject to high load, such as on tugboats, push boats, fishing vessels and other cargo ships."

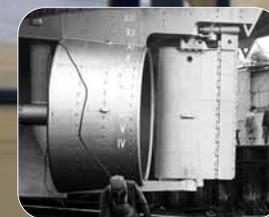
Business expanded due to the purchase of Kort nozzles and more office space was rented. In 1975 Willi Becker initiated contact with the Bau & Montage Gesellschaft, whose engineering workshops and office were located in Hamburg-Altona. It was now time for rudders to be produced for larger ocean-going vessels. Bau & Montage was to manufacture the complicated rudder systems with their machine tools, for which precise, mechanical machining was necessary. The precision of the individual rudder systems enabled a guarantee for these parts.

In 1976 the company had revenues of approx. DM 10 million, of which the steering gear business accounted for DM 1.1 million, DM 8.9 million for rudder systems, licenses, design drawings and revenues from Kort nozzles.

While the rudders were getting ever larger and production costs in West Europe were becoming too high, engineer Franjo Rajic joined the company in 1975 and had the rudders produced by his business contacts in Croatia. Through Mr. Rajic, contacts to Croatia and Slovenia were established to be able to manufacture the rudders more cost-effectively.

Mr. Rajic was primarily hired for product research. Willi Becker started with smaller rudders in inland waterway shipping and was now attempting to get into large ocean-going vessels with his rudders.

The rudders were now 12 m<sup>2</sup> large and were reaching the technical limits of the initial design. Willi Becker realized that the existing rudder concept would have to be reworked for large ocean-going vessels and put Mr. Rajic in charge of the search for a solution.





Wolfgang Haeder



### 1986-1987 – Wolfgang Haeder becomes new General Manager.

Wolfgang Haeder worked for Werft Nobiskrug GmbH in Rendsburg from 1968-1986. In the summer of 1985 Willi Becker himself called Wolfgang Haeder and asked if he could visit him. Wolfgang Haeder was the favoured candidate of the company founder as his successor. Willi Becker wanted to prepare for his departure and told Haeder that he was looking for a new managing director.

At that time the shipyard in Rendsburg was running well Mr. Haeder did not want to change, wanted to stay in Rendsburg and this is the reason why he turned down Willi Becker's offer.

Rolf Beyer became managing director after Willi Becker's death in 1985. However, in 1987 considerable changes took place and Mr. Beyer sold off his part of the business and resigned as managing director. Mr. Karl Johannsen took over the role of managing director for the transition.

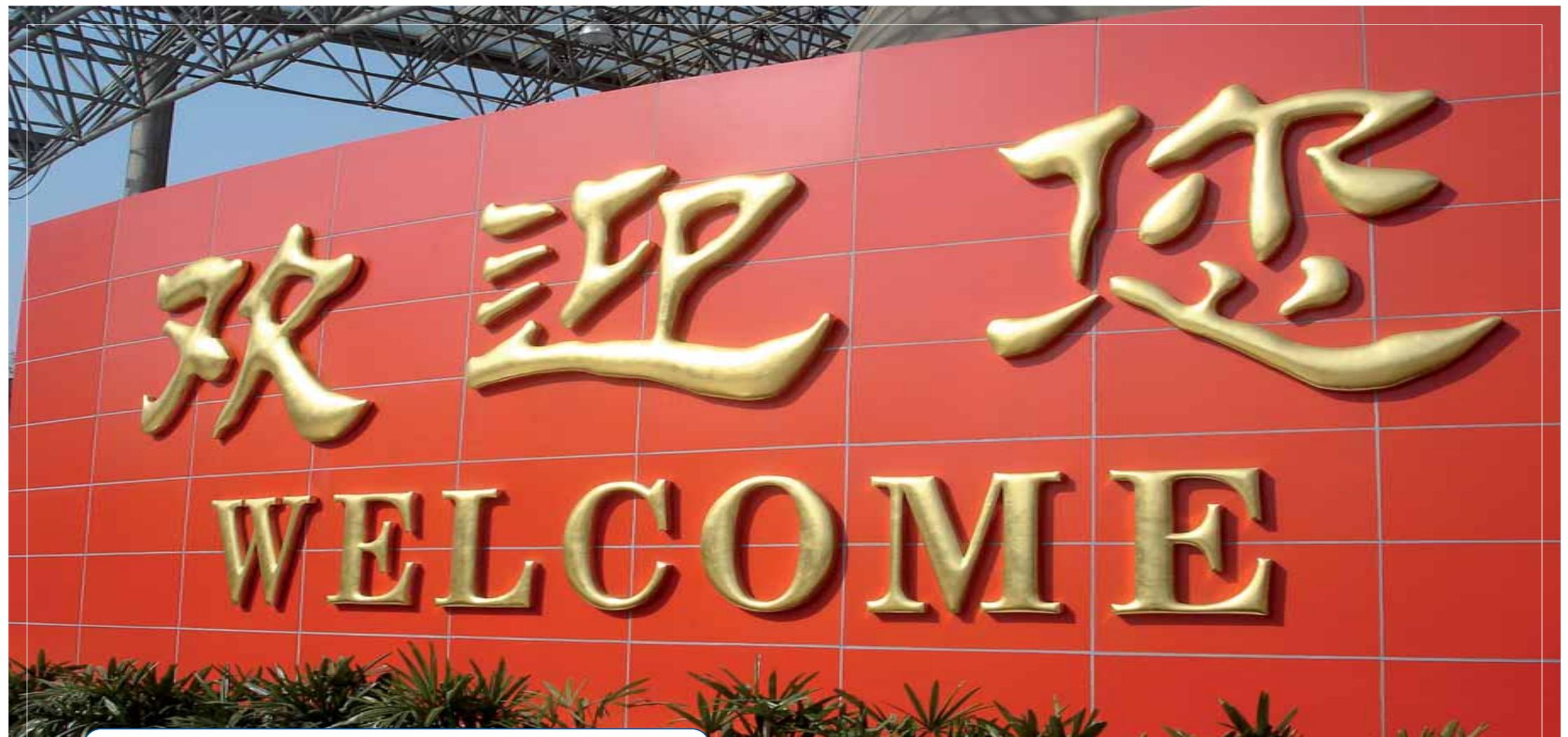
Mr. Haeder's personal situation changed in the summer of 1986. At that time the federal government was cutting subsidies for German shipyards – the death knell for many German shipyards.

The Nobiskrug shipyard was rescued from that crisis by new shareholders. This saved 350 jobs at the shipyard, but the new construction business, Haeder's real domain, was axed.

In September 1986 Mr. Haeder was in charge of the Nobiskrug shipyard booth at the SMM trade fair in Hamburg. He was visited unexpectedly by a delegation from the Willi Becker company with Mr. Johannsen in the lead. The tempting offer to become managing director at Willi Becker lay again on the negotiating table.

There followed successful discussions in Hamburg in November and December 1986 with the chairman of the shareholders, with the interim managing director Mr. Johannsen, Mrs. Becker and her son.

From January 1, 1987, Mr. Haeder became managing director of Willi Becker Ingenieurbüro GmbH for many successful years.



# 欢迎您的到来 WELCOME

## 1996-2001 – Exploring the Far East and battling at home.

For Becker the breakthrough into the Asian market came in the mid 90's with the fitting of five shuttle tankers for Norwegian ship owners. At that time a boom in container ships and mid-sized tankers was beginning and German ship owners were having ships built more and more often in China. Together with South Korea, China became Becker's largest sales market. The Klingenberg and Jüngerhans shipping companies ordered a large number of ships at Chinese shipyards. The rudders for them were to come from Europe – Becker's entry into the Chinese shipbuilding market.

This success did not go unnoticed – a takeover was attempted by Hamworthy, the English conglomerate, who was the main competitor with its Schilling rudders. A majority of Becker shareholders approved the sale to Hamworthy. Hamworthy offered a generous amount for Mr. Haeder' share, who could have entered into well-deserved retirement.

But instead of this Mr. Haeder turned to a venture capital company, Schleswig-Holstein's *Gesellschaft für Wagniskapital*, a Becker shareholder, and explained that a takeover would mean the loss of jobs in Hamburg.

It was essential to prevent this. The *Gesellschaft für Wagniskapital* brought the Hatlapa Uetersener Maschinenfabrik into play. A sustainable plan was developed in September 1998 and Hatlapa became a joint partner of Willi Becker Ingenieurbüro. At the same time Wolfgang Haeder and the Hamburg equity bank GBK became partners of the company.

Hamworthy's takeover attempt was therefore successfully averted. A few years later it was then Becker and Hatlapa's turn to take over Hamworthy's rudder and compressor business in England without the loss of jobs.

Becker's headquarters stayed in Hamburg-St. Georg and the lease for company premises on Danziger Strasse was renewed.

Mr. Haeder continued as managing director of the Willi Becker company with his contract still in effect for the years 1999-2001. In 2001 he actively looked for a successor for the company. An extension to Mr. Haeder's contract as managing director was not under consideration – retirement in Rendsburg was too enticing.



**2003 – Moving Hamburg head office to Neuländer Kamp.**

The relocation of Becker Marine Systems from Danziger Strasse to Neuländer Kamp in Hamburg-Harburg took place in November 2003. After 35 years at offices in St. Georg that were bursting at the seams from the company's strong expansion, Becker moved into its newly built company headquarters in the Neuland commercial area near the Elbe.

At the end of 2003 the new premises came across as almost wastefully large for the Becker team. But extensive expansion of the building will already be beginning in October 2006. With space increasing by 40% enough room will be secured for the steadily growing Becker team.





## TODAY/TOMORROW – *Outlook to the future.*

By the end of 2006 Becker will achieve an overall operating performance of almost EUR 45 million, and employ nearly 100 members of staff in six locations worldwide. Together with long-standing partners in production, manufacturing, machine processing and transportation, over 150 rudder systems will be delivered to 51 customers in 23 countries.

Parallel production in Europe and China is the guarantee of further market-driven growth. In the future Becker will maintain its flexibility through its strategic independence from consolidated companies, shipyards or other industrial groups, which is necessary in order to always provide the customer with the most cost-effective and at the same time most innovative products for his ship.

In 2006 Becker Marine Systems set another significant course of development: since summer 2006 there have been three different lines of business under the Becker name: Manoeuvring technology, Material Handling and Communication. A fourth line of business for the development and marketing of alternative ship building materials will be added later.

The Material Handling division will continue to develop and market the Automated Material Handling AMH, the fully automated provision and handling system for cruise and reefer ships. As a communications provider for merchant ships the Communication division will quickly develop into an important factor in this specialised market.



becker marine systems

THE BECKER HAMBURG TEAM 2006